

ABSTRACT OF THE DISCLOSURE

A communications network includes a communications medium with a synchronous communications transport signal including time-division-multiplexed (TDM) channels, bridges having  
5 respective interfaces to different local area network (LAN) segments, and add-drop circuits coupling associated ones of the bridges to the communications medium. Each add-drop circuit groups TDM channels of the communications transport signal into a bundle, and schedules the use of the bundle to carry data traffic  
10 originated by the associated bridge and to carry data traffic originated by the other bridges. Data traffic originated by the associated bridge and destined for the other bridges is transmitted on the bundle in accordance with the scheduling. For data traffic received from the other bridges via the bundle, it  
15 is determined whether the received data traffic is destined for the associated bridge, and if so then it is forwarded to the associated bridge. Received data traffic destined for the other bridges is re-transmitted on the bundle in accordance with the scheduling for receipt by the add-drop circuit associated with  
20 the destination bridge.

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